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FSQS FACTS

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NITRITE-FREE MEAT PRODUCTS

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Establishing a Tradition

PREVIOUS EDITION
CURRENT SERIAL RECORDS

Historically, salt has been one of the primary ingredients used in preserving meats. But the salt which our early ancestors used was not the purified sodium chloride--better known as table salt--which we have today. It contained many impurities, one of which was nitrate.

As man's knowledge increased, he discovered that the nitrate in those early forms of salt has useful characteristics all of its own. Better known as saltpeter in those days, the nitrate served as a preservative and produced a distinctive flavor and color in preserved meats which was desirable to many people. It was later discovered that nitrate also had the ability to inhibit the growth of certain microorganisms, including those which cause botulism.

Down through the centuries, these qualities produced by nitrate became closely identified with cured meat products such as ham, bacon, lunchmeats, corned beef, frankfurters and other cured sausages. Thus, a tradition became established--i.e., that meat products without the characteristic flavor and color produced by nitrate were not "the real thing".

Tradition Becomes Law

When Congress passed the Federal Meat Inspection Act in 1906, it included authority for the U.S. Department of Agriculture (USDA) to regulate the labeling of meat products to ensure truthfulness and protect consumers against misrepresentation. Under this authority, regulations were established which prescribed the composition and processing procedures meat packers had to follow to be able to label products with certain names.

Thus, the traditional relationship between the use of nitrate--and in more recent years, nitrite--and the labeling of cured products such as ham, bacon, corned beef, and frankfurters became written into the regulations. To this day, these products cannot be labeled with such traditional names unless they have been cured with nitrate or nitrite. For example, cured pork bellies cannot be called bacon unless the curing mixture contains nitrate and/or nitrite.. nor can a cooked sausage be called a frankfurter without the use of these additives.

Questions of Safety and Alternatives

In the past few years, public attention has focused upon the continued use of nitrate and nitrite in curing meat products--following the discovery that they can combine with secondary and tertiary amines to form nitrosamines, which are carcinogenic. Many consumers have stopped buying cured meats as a result, and others have expressed a strong desire to buy alternative products made without nitrate or nitrite. Safety issues with regard to nitrate/nitrite are presently under evaluation by the Department, and as a result allowable levels of these additives may be reduced.

To meet this consumer demand, a few meat processors have asked USDA's Food Safety and Quality Service (FSQS) for permission to produce cured meats without using nitrate or nitrite, but still label them with the traditional names like bacon, frankfurters, etc. The proposed labels for these products-- as well as other merchandising or advertising--would highlight the fact that such products are "nitrite free".

These requests heretofore have been denied, because the current regulations still require that products labeled with the traditional names must be manufactured with nitrate or nitrite. It was believed that consumers were so accustomed to associating the traditional names with the characteristic flavor and color produced by nitrate and nitrite, that--without these additives--products labeled with the traditional names would be misrepresentations.

Further, it was believed that consumers also were so accustomed to expecting cured meats to be safe from spoilage because of the use of nitrate and nitrite that they would also handle "nitrite free" products labeled with traditional names just as they have always handled the traditional products. Experience has shown that many people abuse cured meats by not maintaining them under proper refrigeration.

Consequently, USDA--and most of the meat industry--in the past has resisted consideration of any change in the current regulations and processing procedures that might result in someone contracting botulism under conditions of misuse.

Responding to Consumer Desires

A new proposal, issued by USDA's Food Safety and Quality Service, prescribes conditions which would allow meat manufacturers to name products with traditional names when limited or no nitrate or nitrite was used--provided that the flavorings and other cured agents used in preparation result in a meat product with similar flavor and consistency to the cured meat product prepared with traditional levels of nitrite and/or nitrate.

Cured meat products containing no added nitrate or nitrite, which are not preserved by thermal processing, fermentation, pickling or drying would be labeled "NO NITRATE OR NITRITE ADDED-NOT PRESERVED, MUST BE REFRIGERATED BELOW 40 DEGREES F. AT ALL TIMES." Cure products prepared with less than 1,320 parts per million nitrate and 120 ppm nitrite would be considered as only partially preserved products. These meat products would be labeled "NOT FULLY PRESERVED, MUST BE REFRIGERATED BELOW 40 DEGREES F. AT ALL TIMES."

The proposal would also prohibit the use of nitrate and nitrite in the preparation of baby, junior, and toddler foods that are canned or otherwise preserved by thermal processing in hermetically sealed containers. Infants are less tolerant than adults of nitrate and nitrite. Since infant foods prepared by thermal processing in hermetically sealed containers are thoroughly sterilized to destroy harmful bacteria, nitrate and nitrite are not needed to preserve the food. The only other reason for using nitrate or nitrite in infant foods is for cosmetic purposes. Nearly all infant food processors have already eliminated nitrate and nitrite from their products voluntarily, and the proposal would, therefore, formalize this action.

